the specification and page 13, line 1. Basis for Claim 2 can be found on page 4, lines 4-9. Basis for Claim 3 can be found on page 8, lines 27-28. No basis is required for the amendment to Claim 4 because the amendment deletes rather than adds a limitation. Basis for Claim 5 can be found on page 10, line 5.

New Claims 6-10 have been added. Basis for Claim 6 and 7 can be found in the specification on page 8, line 4. Basis for Claim 7 can be also found on page 3, line 11 of the specification. Basis for Claim 8 can be found on page 10, line 13, and basis for Claim 9 can be found on page 10, line 14. Basis for Claim 10 can be found in the examples on page 10-13, none of which refer to the use of an internal surfactant. Reference to the use of self-emulsifying prepolymers can also be found page 8, line 16 of the specification.

Response to Rejection Under 35 U.S.C §103(a)

Claims 1-5 have been rejected under 35 U.S.C §103(a) as being unpatentable over U.S. Patent 5,576,382 (Seneker et al.). The Examiner asserts that Seneker et al. discloses an aqueous composition of polyurethane of the instantly claimed particle size. The Examiner concedes that the solid content of the examples is less than that of the instant claims; however, the Examiner maintains that it would be obvious to one of ordinary skill in the art at the time of the invention to use the instantly claimed solids content because Seneker et al. discloses the use of high solids content at column 2, lines 45-47. Furthermore, the Examiner asserts that the slight increase in solids content over that of the examples would give a predictable increase in viscosity of the composition and change the coating properties. Applicants disagree with the Examiner for the following reasons.

The use by Seneker et al. of the term "high solids, stable dispersion" is vague because the patentees never specify solids content except for the examples, which show levels not exceeding 40% by weight. Since prior art is limited to what it fairly teaches, and since Seneker et al. only teaches how to make latexes of 40% or lower, it cannot be said, as the Examiner suggests, that it would be obvious to "use" the instantly claimed solids content of at least 45% by weight. On the contrary, a fair reading of Seneker et al. suggests that "high solids, stable dispersion" means 40% by weight.

Seneker et al. did not make a polyurethane latex with a solids content of higher than 40% because their method, which requires the use of an internal stabilizer such as DMPA to stabilize the prepolymer, prevented them from doing so. Since such stabilizers significantly increase the viscosity of the prepolymer, a solvent (such as 10% NMP) is required to reduce viscosity of the prepolymer. However, the very presence of solvent creates two additional problems. First, the solvent is undesirable in and difficult to remove from the final latex without deleteriously affecting its stability. Second, a prepolymer that is dissolved in a solvent will form particles in the nanometer range, which Seneker et al. considers desirable to improve the stability of the latex and to achieve films with high surface gloss (column 9, lines 4-6). However, these extremely small particle sizes have an increase in surface area that translates to a dramatic increase in viscosity at a lower solids content level, which, contrary to the Examiner's suggestion, severely limits Seneker et al. from achieving a polyurethane latex solids content of greater than 40%.

Although it may be possible to reduce or even avoid the use of solvent by using lower amounts of internal stabilizer in the process described by Seneker et al., the resultant latex would not be a stable one. Therefore, Seneker et al. only teaches how to make a stable polyurethane latex having a solids content of not greater than 40% by weight. Stabilizing amounts of the internal surfactant preclude the preparation of useful polyurethane latexes having a solids content of greater than 40% by weight because the viscosity becomes so high as to create a paste as opposed to a stable latex.

In contrast, the volume average particle sizes of Applicants' latex can be controlled at a micron or submicron level, which still provides stability without severely limiting solids content, as evidenced by Examples 1-3 in the specification. Moreover, solvent is not required in Applicants' process because prepolymer-incompatible internal surfactants are not required. Consequently, a higher solids content, low viscosity polyurethane latex is demonstrably achievable using Applicants' process.

For these reasons, it is not obvious in view of Seneker et al. to make a stable polyurethane latex with a solids content of at least 45% by weight that contains not more

than 1 weight percent solvent. Accordingly, Claim 1 as amended is patentable over Seneker et al. Claims 2-5, which depend from Claim 1 and which are therefore necessarily narrower in scope, are also patentable. Claims 6-9, which require the use of an external surfactant, are also patentable. Claim 10, which limits stabilization of the polyurethane to only a external surfactant, is also patentable.

For the above-stated reasons, Applicants respectfully request that a Notice of Allowance be granted for Claims 1-10.

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